



DESK TYPE BOOKSHELF

FIELD OF THE INVENTION

The present invention relates to a desk type bookshelf, and more particularly to a desk type bookshelf which can automatically hold
5 books or writing materials in according with a user's necessity so as to meet the requirement of holding different objects, be conveniently used, and further increase the economic benefit of the desk type bookshelf.

BACKGROUND OF THE INVENTION

10 Typically, if books are confused stacked together, then the necessary book won't be easily looked for and conveniently taken out. Furthermore, the confused stacked books waste the space of a desk. Thus, all users generally put a bookshelf on the desk for upward holding books to stand on the desk. There are many kinds
15 of desk type bookshelves in the prior art, e.g. a popular simple bookshelf which is constituted by two L-shaped plates, a fixing bookshelf made of wood or metal material, a combined bookshelf made of plastic material, etc.

Generally, current bookshelves upward hold two sides of the
20 books, but the front side of the books cannot be positioned. Furthermore, when the books are not fully put on the bookshelf, the books can be toppled over so as to cause a user inconvenient use. The inconvenience of adjusting motion still causes a user inconvenient use as a whole if the bookshelf has adjustable function

in width. Thus, conventional bookshelf cannot meet different requirements of a user. Furthermore, when a bookshelf is disposed on a desk, the objects which are put on the bookshelf are too less to cause the bookshelf to waste the space of the desk so as to
5 inconveniently use the bookshelf as a whole.

Accordingly, there exists a need for a desk type bookshelf to solve the above-mentioned problems and disadvantages. The desk type bookshelf has automatic holding function so as to achieve the object of convenient use, can securely mount the objects which are
10 put on the bookshelf, and further increase the economic benefit of the bookshelf.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a desk type bookshelf has automatic holding function so as to achieve the object
15 of convenient use and securely mount the objects which are put on the desk type bookshelf.

In order to achieve the foregoing objects, the present invention provides a desk type bookshelf including: a frame base; a plate body mounted at a side of the frame base; and a flexible binding
20 strap penetrating through and winding around the plate body; wherein the frame base is provided with a fixing sheet expanded from the other side thereof for mounting the frame base to a side of a desk, the plate body is provided with a series of vertical through grooves formed therein so as to be penetrated through and wound

around by the flexible binding strap, and the flexible binding strap is provided with two positioning tips and two binding shells respectively sewed at two ends thereof for inserting the positioning tip which is bigger than the binding shell in diameter so as to prevent the flexible binding strap from leaving the vertical through grooves of the plate body, thereby holding objects on the plate body by utilizing the flexible binding strap and further being conveniently used and having high holding and fixing function.

The present invention is further characterized in that:

10 The frame base has a U-shaped cross-section for putting the objects.

The frame base is provided with two hollow tubes disposed at two ends of the side thereof, and the plate body is provided with two inserting rods which are formed at two ends thereof for inserting to the hollow tubes of the frame base, such that the plate body is mounted at the side of the frame base.

The plate body is provided with a contacting sheet expanded from the bottom thereof for stably contacting the frame base.

The plate body and the frame base are integrally made.

20 The vertical through grooves are provided with a plurality of reaming hole respectively formed at the top thereof such that the flexible binding strap conveniently penetrates through the vertical through grooves.

The positioning tip is provided with two position constraining

portions respectively formed at two ends thereof for preventing the flexible binding strap from leaving the vertical through grooves.

The frame base has an inverse U-shaped cross-section, is provided with a plurality of first through holes formed in the side of the frame base, is provided with a plurality of rib sheets respectively corresponding to the through holes, and is provided with a plurality of screwing holes formed in the rib sheet and corresponding to the through holes, and the plate body is provided with a plurality of second through holes formed in a bottom thereof and corresponding to the first through hole of the frame base, whereby the plate body is lockable mounted to the frame base by utilizing fixing bolts so as to increase the strength of the desk type bookshelf.

The foregoing, as well as additional objects, features and advantages of the invention will be more readily apparent from the following detailed description, which proceeds with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective exploded view of a desk type bookshelf according to an embodiment of the present invention, showing the shape and relation of each elements of the present invention.

FIG. 2 is a perspective view of a desk type bookshelf according to the first embodiment of the present invention.

FIG. 3 is a perspective view of a plate body and a flexible binding

strap of the present invention.

FIG. 4 is a perspective view of a desk type bookshelf of the present invention showing an actual example.

FIG. 5 is a perspective exploded view of desk type bookshelf
5 according to another embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is relates to a desk type bookshelf which has high holding and fixing function and is conveniently used.
10 Referring to FIG. 1, it depicts a structure of a desk type bookshelf according to an embodiment of the present invention. The desk type bookshelf includes a frame base 10, a plate body 20 and a flexible binding strap 30. The plate body 20 is mounted at a side of the frame base 10, and the flexible binding strap 30 can penetrate
15 through and wind around a front side and a rear side of the plate body 20, thereby holding objects on the plate body 20 by utilizing the flexible binding strap 30.

The detailed structure of the desk type bookshelf of the present invention is shown in FIGS. 1 to 3. The frame base 10 has a U-
20 shaped cross-section, and has a space which is located over the frame base 10 for putting the objects, e.g. books 60, writing materials 70, a liquid crystal display, etc. (shown in FIG. 4). A fixing sheet 11 is expanded form a side sheet of the frame base 10 for mounting the frame base 10 to a side of a desk 50 (shown in

FIG. 4). Furthermore, the frame base 10 is provided with two hollow tubes 15 disposed at two ends of the other side sheet for inserting the plate body 20.

A contacting sheet 21 is expanded from the bottom of the plate
5 body 20 for stably contacting the frame base 10, and two inserting
rods are formed at two ends of the plate body 20 for inserting to the
hollow tubes 15 of the frame base 10 such that the plate body 20 is
mounted at the other side sheet of the frame base 10. In an
alternative embodiment, the plate body and the frame base can be
10 integrally made. Furthermore, a series of vertical through grooves
25 are formed in the plate body 20 so as to be penetrated through
and wound around by the flexible binding strap 30, and a plurality
reaming hole 26 are respectively formed at the top of the vertical
through grooves 25 such that the flexible binding strap 30
15 conveniently penetrates through the vertical through grooves 25.

Two binding shells 31 are respectively sewed at two ends of the
flexible binding strap 30 for inserting a positioning tip 35 which is
bigger than the binding shell 31 in diameter. Furthermore, two
position constraining portions 36 are respectively formed at two
20 ends of the positioning tip 35 for preventing the flexible binding
strap 30 from leaving the vertical through grooves 25 of the plate
body 20 such that the flexible binding strap 30 can penetrate
through and winds around different vertical through grooves 25 in
accordance with necessity and is constrainedly mounted on the
25 plate body 20. Thus, the present invention provides the desk type

bookshelf which has high holding and fixing function and is conveniently used.

As shown in FIGS. 3 and 4, the desk type bookshelf according to an actual example of the present invention is mounted at the side of the desk 50 by utilizing the fixing sheet 11 of the frame base 10. Furthermore, the flexible binding strap 30 penetrates through and winds around the necessary vertical through grooves 25 of the plate body 20. The positioning tip 35 is inserted in two binding shells 31 located at two ends of the flexible binding strap 30 such that the flexible binding strap 30 is disposed on the plate body 20 in advance. Thus, when there is no object put on the frame base 10, the flexible binding strap 30 can flat contact a surface of the plate body 20 such that there is no problem of wasting space.

When a user need to put the books 60 or the writing materials 70, the user only need to pull the corresponding the flexible binding strap 30 and then the books 60 or the writing materials 70 are held on the plate body 20. The flexible binding strap 30 has binding force, and therefore the books 60, the writing materials 70, etc. are held on the plate body 20 of the frame base 10 so as to substantially increase the secure holding and have better changeable use in accordance with different necessity of the user.

As shown in FIG. 5, it depicts another embodiment of the present invention. The frame base 80 has an inverse U-shaped cross-section, a fixing sheet 81 is expanded from a bottom edge of a side sheet of the frame base 80 for mounting to a desk 50, and a plurality

of through holes 83 are formed in a contacting sheet 82 of the frame base 80. The frame base 80 is provided with a plurality of rib sheets 85 which are respectively corresponding to the through holes 83, and a plurality of screwing holes 86 are formed in the rib sheet 85 and corresponding to the through holes 83. A plurality of through holes 27 are formed in a bottom edge of the plate body 20 and corresponding to the through hole 83 of the frame base 80, whereby the plate body 20 is lockable mounted to the frame base 80 by utilizing fixing bolts 87 so as to increase the strength of the desk type bookshelf, wherein the books 60, the writing materials 70, or a liquid crystal display, etc. can be put in the space surrounded by the desk type bookshelf.

Although the invention has been explained in relation to its preferred embodiment, it is not used to limit the invention. It is to be understood that many other possible modifications and variations can be made by those skilled in the art without departing from the spirit and scope of the invention as hereinafter claimed.